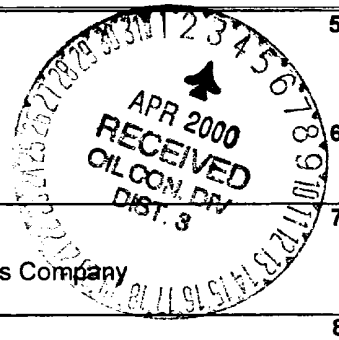
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2000 JAN 11 PM 1:57

070 FARMINGTON, NM



1a. Type of Work
DRILL

1b. Type of Well
GAS

2. Operator
BURLINGTON RESOURCES Oil & Gas Company

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499

(505) 326-9700

4. Location of Well
2270' FNL, 2530' FEL

Latitude 36° 37.1, Longitude 107° 20.8

5. Lease Number
SF-079522
Unit Reporting Number
89100009490

6. If Indian, All. or Tribe

7. Unit Agreement Name
San Juan 28-5 Unit

8. Farm or Lease Name
San Juan 28-5 Unit

9. Well Number
24B

10. Field, Pool, Wildcat
Blanco Mesaverde

11. Sec., Twn, Rge, Mer. (NMPM)
G Sec. 34, T-28-N, R-5-W
API # 30-039- 26308

14. Distance in Miles from Nearest Town
6 miles from Gobernador

12. County Rio Arriba **13. State** NM

15. Distance from Proposed Location to Nearest Property or Lease Line
2270'

16. Acres in Lease

17. Acres Assigned to Well
320 N/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
1700'

19. Proposed Depth
6137'

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6709' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

24. Authorized by: Peggy Cole
Regulatory Compliance Administrator

12-7-99
Date

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY /s/ Charlie Beecham **TITLE** _____ **DATE** MAR 31 2000

Archaeological Report to be submitted
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-039-26308	72319	Blanco Mesaverde

⁴Property Code	⁵Property Name	⁶Well Number
7460	SAN JUAN 28-5 UNIT	24B

⁷OGRID No.	⁸Operator Name	⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6709'

¹⁰ Surface Location

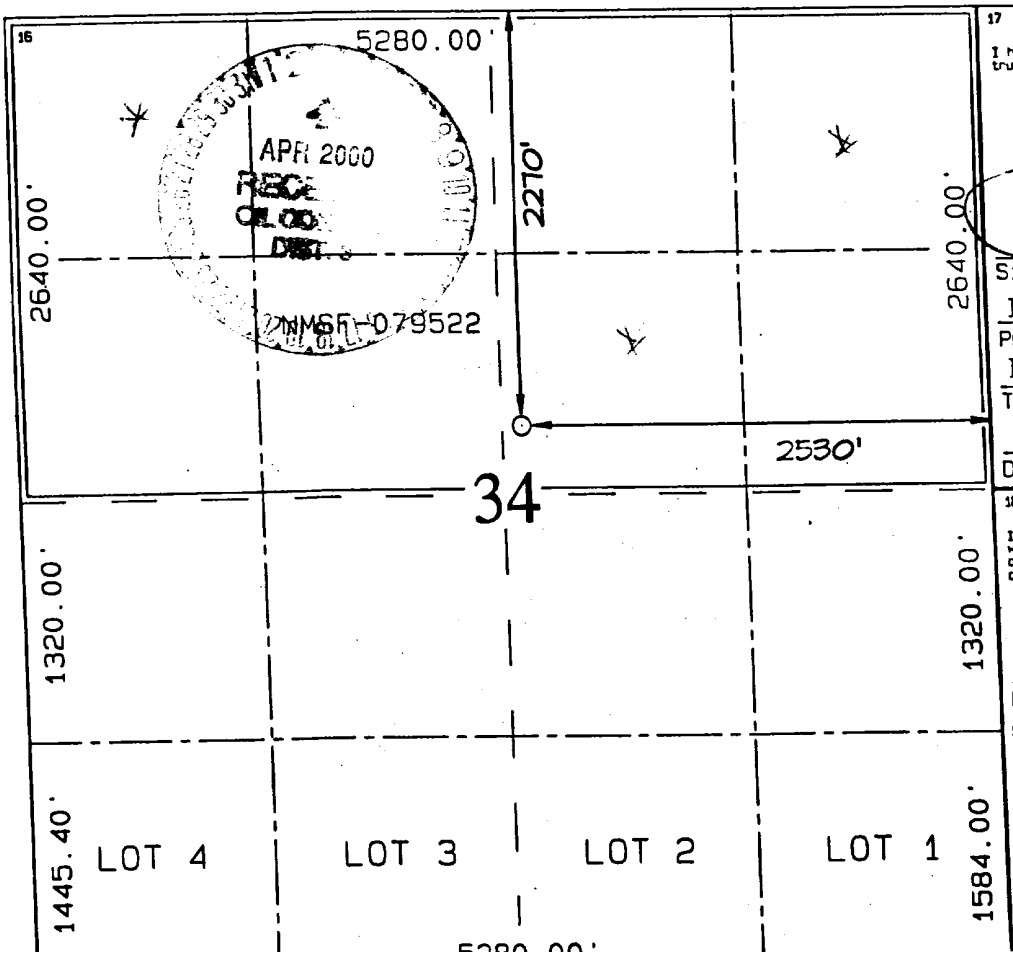
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	34	28N	5W		2270	NORTH	2530	EAST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
N/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Peggy Cole
Printed Name

Regulatory Administrator
Title

12-7-99
Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

OCTOBER 7, 1999
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number 6857

OPERATIONS PLAN

Well Name: San Juan 28-5 Unit #24B
Surface Location: 2270' FNL, 2530' FEL, Section 34, T-28-N, R-5-W
Rio Arriba County, New Mexico
Latitude 36° 37.1, Longitude 107° 20.8
Formation: Blanco Mesa Verde
Elevation: 6709' GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	2887'	aquifer
Ojo Alamo	2887'	3079'	aquifer
Kirtland	3079'	3179'	gas
Fruitland	3179'	3562'	gas
Pictured Cliffs	3562'	3651'	gas
Lewis	3651'	4183'	gas
Intermediate TD	**3751'**		
Mesa Verde	4183'	4514'	gas
Chacra	4514'	5241'	gas
Massive Cliff House	5241'	5404'	gas
Menefee	5404'	5737'	gas
Point Lookout	5737'		gas
Total Depth	**6137'**		

Logging Program:
Cased hole Gamma Ray, Cement bond - surface to TD
Mud Logs/Coring/DST - none

Mud Program:

Interval- MD	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200- 3751'	LSND	8.4-9.0	30-60	no control
3751- 6137'	Air/Mist	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

Hole Size	Measured Depth	Csg Size	Weight	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3751'	7"	20.0#	J-55
6 1/4"	3651' - 6137'	4 1/2"	10.5#	J-55

Tubing Program: 0' -6137' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -
11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -
11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -
2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -
7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -
9 5/8" x 7" x 2 3/8" x 2000 psi tree assembly.

General -
- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -
Lead w/344 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 0.5# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% gel, 2% calcium chloride, 7# gilsonite/sx and 0.5# flocele/sx (1128 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 3079'. First stage: cement with 150 sx Class "B" 50/50 poz w/2% gel, 7 pps Gilsonite, 1% calcium chloride, 0.5 pps Cellophane. Second stage: 316 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 7 pps Gilsonite (1128 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 3079'. Two turbolating centralizers at the base of the Ojo Alamo at 3079'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -
Cement to circulate liner top. Pump 281 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 2% gel, 0.1% retardant, 5# gilsonite/sx and 0.4% fluid loss additive (357 cu.ft., 40% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

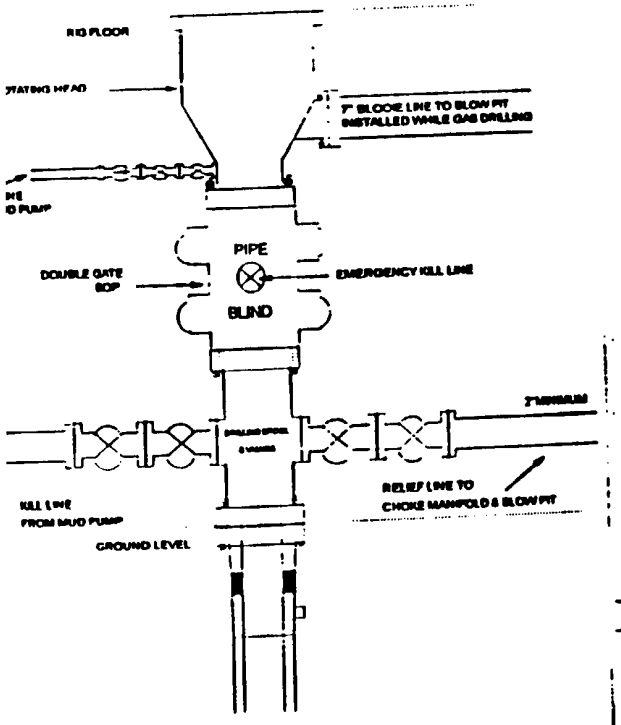
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The north half of Section 34 is dedicated to the Mesa Verde.
- This gas is dedicated.

Drilling Engineer

12/7/1999
Date

BOP Configuration
2M psi System

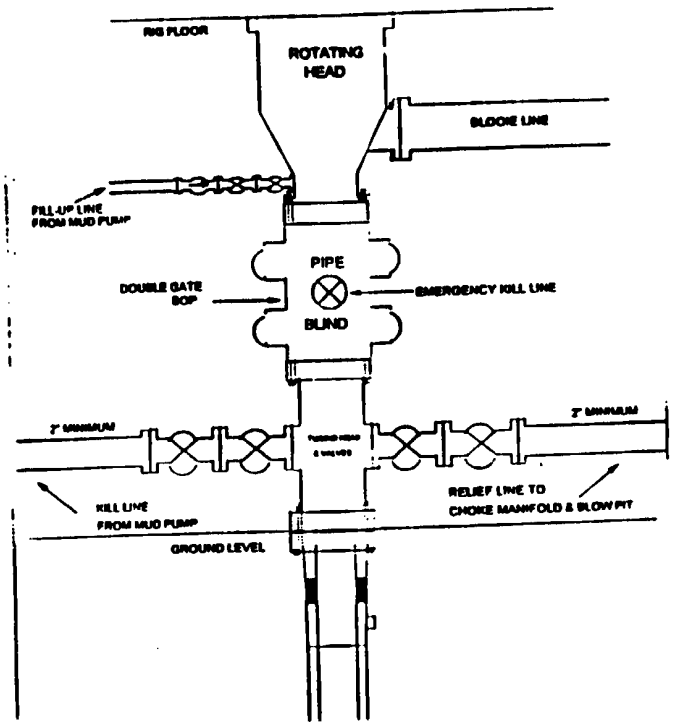


ore, 2000psi minimum working pressure double gate BOP to be equipped lind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be led on the top of the BOP. All equipment is 2000psi working pressure/or er.

FIGURE #1

BURLINGTON RESOURCES

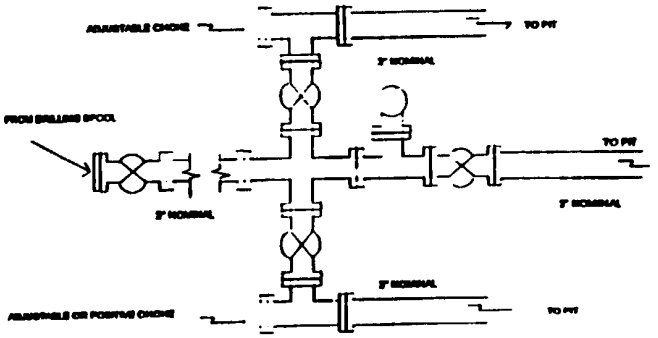
BOP Configuration
2M psi System



Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal). 2,000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams

FIGURE #2

Choke Manifold Configuration
2M System



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

BURLINGTON RESOURCES OIL & GAS COMPANY SAN JUAN 28-5 UNIT #24B

2270' FNL & 2530' FEL, SECTION 34, T28N, R5W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO